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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Andreas Hund

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EXAMINER

CONSILVIO, MARK J

ART UNIT

PAPER NUMBER

2872

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/752,258	HUND ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mark Consilvio	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Status of Claims*

Claims 1-23 were previously rejected and claims 1, 5, and 21 are newly amended. Claim 4 has been cancelled. Claims 1-3 and 5-23 are currently pending.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-15, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki (US Patent Application Publication No. 2001/0030801) in view of Westphal (US Patent No. 4,576,450) and in further view of Tandler et al. (US Patent No. 6,088,155).

With respect to claim 1, Kawasaki discloses a tube for a microscope, comprising: an adaptation interface (i.e. near G1) configured to convey a light beam from the microscope along an optical axis; a rotatably disposed operator interface (OC); a beam-deflecting device (P1, M1, P2, P3) including a beam-splitting device (i.e. the path dividing element of par. 85), the beam-splitting device being disposed at a first distance perpendicular from an extension of the optical axis (*i.e.* along the optical path between G1 and G2); and a rotatably disposed beam deflecting unit (M2) disposed on a side of the optical axis opposite the optical interface, a rotation of the operator interface (OC) being constrainedly coupled to a rotation of the beam-deflecting unit;

Art Unit: 2872

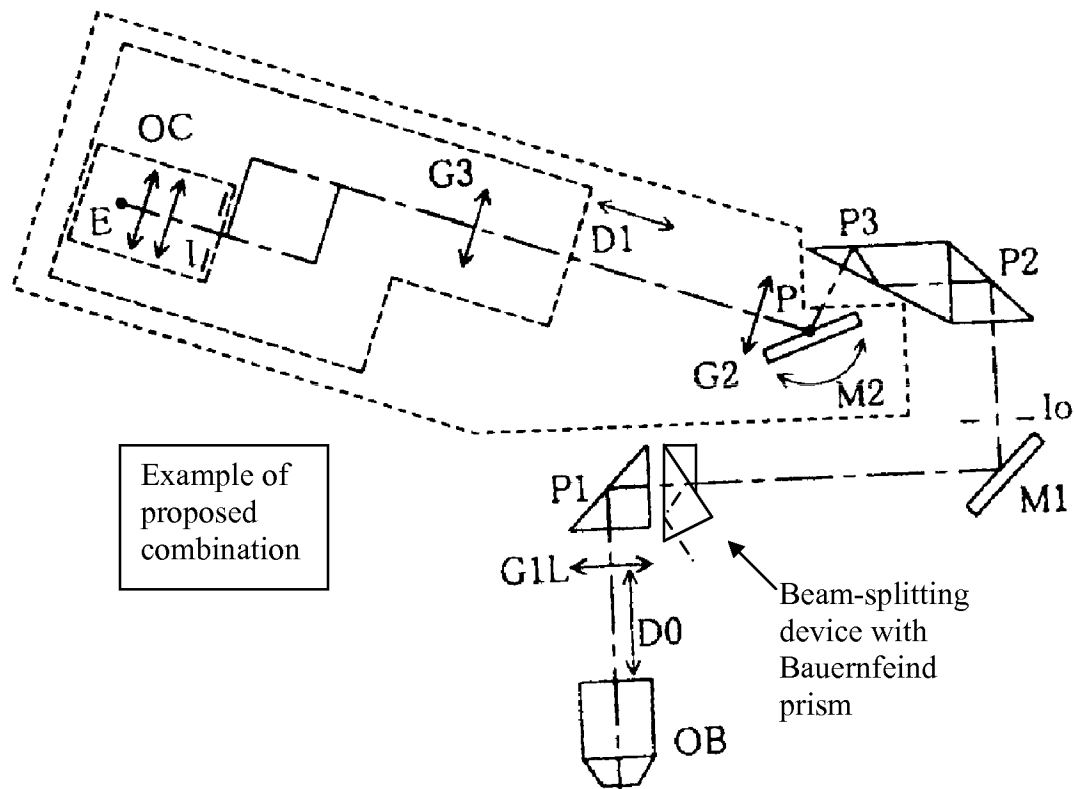
wherein the beam-deflecting device is configured to deflect at least a portion of the light beam in a direction of the beam-deflecting unit; wherein the optical axis is defined by a path of the light beam between the microscope and the beam deflecting device (i.e. between OB and P1); and wherein an axis of rotation (P) of the beam deflecting unit is disposed at a second distance from the optical axis (fig. 3). Kawasaki does not expressly disclose the second distance being greater than the first distance because the exact placement of the path dividing element is not foretold (*i.e.* other than it being along the optical path between G1 and G2). However, insertion of a path dividing element at any reasonably convenient location along the optical path would have been within the abilities of one of ordinary skill in the art including a position such that the second distance is greater than the first distance. For example, Westphal teaches a similar microscope tube with a beam-deflecting device (7, 8) including a beam-splitting device (8), the beam-splitting device being disposed at a first distance perpendicular from an extension of the optical axis; and a rotatably disposed beam deflecting unit (9, 19) disposed on a side of the optical axis opposite the optical interface; wherein the optical axis is defined by a path of the light beam between the microscope and the beam deflecting device; and wherein an axis of rotation (16) of the beam deflecting unit is disposed at a second distance perpendicular from an extension of the optical axis, the second distance being greater than the first distance (fig. 2). Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to arrange the beam-splitting element of Kawasaki such that the second distance is greater than the first distance (*e.g.* immediately adjacent P1) to achieve the claimed invention because shifting the position of the splitting element would not have modified the operation of the device and the modification would have yielded predictable result of a more compact microscope

Art Unit: 2872

tube. See *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) and *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

Though each teaches the beam-splitting device includes a beam-splitting prism to reflect a portion of the light beam, the combination of Kawasaki and Westphal as stated *supra* does not expressly disclose the beam-splitting device includes a Bauernfeind prism configured to reflect therein twice the at least a portion of the light beam of claim 1. However, Tandler teaches a beam-splitting device for a microscope that uses such a Bauernfeind prism (4) attached to another prism selectively removable from the optical axis via a magazine slider (8, 9) so that the desired transmission can be directed to an operator or image capture device. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to replace the beam-splitting prism of Kawasaki or Westphal with a beam-splitting arrangement like that of Tandler since all the elements were known in the prior art, one of ordinary skill could have combined the elements as claimed by known methods and with no change in respective functions, and the combination would have yielded predictable result of a microscope that allows the image to be selectably directed to observation elements.

Art Unit: 2872



With respect to claim 2, Kawasaki discloses the beam-deflecting device includes a deflecting prism (P1) (fig. 3).

With respect to claim 3, Kawasaki discloses the deflecting prism (P1) is configured to deflect by 90 degrees the light beam coming from the adaptation interface (fig. 3).

With respect to claim 5, combination of Kawasaki and Westphal and Tandler discloses or suggests the beam-deflecting device includes a deflecting prism (P1) wherein the deflecting prism (P1) is configured to deflect by 90 degrees the light beam coming from the adaptation interface and wherein Bauernfeind prism is disposed between (*i.e.* along the optical path) the deflecting prism and the beam deflecting unit (see figure above of proposed combination).

With respect to claims 6 and 7, combination of Kawasaki and Westphal and Tandler discloses or suggests an optical component (*i.e.* a prism) associated with the Bauernfeind prism

Art Unit: 2872

(4), the optical component being configured to split the light beam coming from the adaptation interface into first and second partial beams (see Tandler figs. 1a and 2a).

With respect to claim 8, combination of Kawasaki and Westphal and Tandler discloses or suggests the prism is cemented to the Bauernfeind prism (see Tandler figs. 1a and 2a).

With respect to claim 9, Kawasaki discloses optical properties of the beam-deflecting device (P1, M1, P2, P3) are selectable so that a length of an optical path of light beam in the tube is adaptable (par. 76).

With respect to claim 10, Kawasaki discloses at least a portion of the beam splitter device is movable into and out of a working position (par. 85) [Also, see Westphal (col. 4, lines 5-22) and Tandler (figs. 1a-2c)].

With respect to claims 11, the combination of Kawasaki and Westphal and Tandler discloses or suggests all the limitations of claim 1 and 10 as stated *supra*. All three references teach the desirability to selectively switch the beam path for at least a portion of the light beam so that the image of the object may arrive at an image recording device such as a camera. Though Kawasaki is silent to the means by which the beam-splitting device is switched, Tandler teaches at least a portion of the beam-splitter device is movable into and out of a working position by a magazine slider (9) (fig. 1a) and thus the technique of utilizing a magazine slider to move a beam splitter into and out of a working position was recognized as part of the ordinary capabilities of one skilled in the art. One of ordinary skill in the art would have been capable of applying this known technique to the proposed combination and the results would have been predictable to one of ordinary skill in the art. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to apply the known technique of

Art Unit: 2872

providing a magazine slider to move a beam splitter of the proposed combination into and out of a working position to achieve the claimed invention and the modification would have the yielded predictable result of a microscope tube that allows portions of the light beam to be selectively split to each component as desired with relative ease. See *In re Nilssen*, 851 F.2d 1401, 7 USPQ2d 1500 (Fed. Cir. 1988) and *Dann v. Johnston*, 425 U.S. 219, 189 USPQ 257 (1976).

With respect to claim 12, Kawasaki discloses the operator interface (OC) and the beam-deflecting unit (M2) are rotatable about a rotation axis (at P), the rotation axis being perpendicular to the optical axis of the light beam (fig. 3).

With respect to claim 13, Kawasaki discloses, upon a rotation of the operator interface (OC) through a first angle, the beam-deflecting unit (M2) is configured to rotate through a second angle half as large as the first angle (par. 72).

With respect to claims 14 and 15, Kawasaki discloses a lens device (G1L) disposed between the adaptation interface and the beam-deflecting device, the lens device having a positive refractive power and the lens device being configured to convert a substantially collimated light beam into a converging light beam (pars. 71-72, 86, and 91).

With respect to claim 19, Kawasaki discloses the operator interface (OC) includes a binocular element configured for eyepiece viewing by an operator (par. 71).

With respect to claim 20, Kawasaki discloses the beam-splitting device is configured to split-off a first portion of the light beam coming from the adaptation interface to a detector (par. 85).

With respect to claims 21, the combination of Kawasaki and Westphal and Tandler discloses or suggests the beam-splitting device includes an optical component associated with the



Art Unit: 2872

Bauernfeind prism, the optical component being configured to split-off the first portion of the light beam to at least one of the documentation interface and the detector (Tandler fig. 1a).

With respect to claims 22, the combination of Kawasaki and Westphal and Tandler discloses or suggests the optical component includes a prism attached to the Bauernfeind prism (Tandler fig. 1a).

With respect to claims 23, the combination of Kawasaki and Westphal and Tandler discloses or suggests the prism is cemented to the Bauernfeind prism (Tandler fig. 1a).

Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasaki (US Patent Application Publication No. 2001/0030801) in view of Westphal (US Patent No. 4,576,450) and Tandler et al. (US Patent No. 6,088,155) and in further view of Sato (US Patent No. 5,519,531).

With respect to claims 16-18, the combination of Kawasaki and Westphal and Tandler discloses or suggests all the limitations of claim 1 as stated *supra*. Though Kawasaki teaches telescopic assembly telescopic in the direction of the optical axis of the light beam extending therein and a lens device (G2, G3) rotatably disposed between the beam deflecting unit (M2) and the operator interface (OC), the combination does not expressly disclose all further limitations of claims 16-18. However, Sato teaches an assembly is telescopic in a direction of an optical axis of a light beam and includes a first lens (112) having a negative refractive power and configured to substantially collimate a light beam, a second positive lens (113), and an operator interface (103) (fig. 8). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of proposed combination of Kawasaki and

Art Unit: 2872

Westphal and Tandler with Sato to allow the assembly of Kawasaki to be telescopic as taught by Sato to allow the operator to extend the usable range of the viewer's position making the microscope more ergonomic.

### ***Response to Arguments***

Applicant's arguments filed 04/08/2009 have been fully considered but they are not persuasive. In response to applicant's argument that there is no suggestion to combine the references of Kawasaki and Tandler because a Bauernfeind prism is more complex or because it would adversely affect the functioning of Kawasaki's microscope, it is noted that, when considering obviousness of a combination of known elements, the operative question is "whether the improvement is more than the predictable use of prior art elements according to their established functions." *KSR International Co. v. Teleflex Inc.* (KSR), 550 U.S. \_\_\_, 82 USPQ2d at 1396. The references teach all the claimed elements and a rationale for combining those elements has been provided. Thus, the examiner has established a *prima facie* case of obviousness and it is the burden of the applicant to present evidence or reasoning that demonstrates non-obviousness. The combination as proposed (*i.e.* the inclusion of a Bauernfeind prism beam-splitter) does not appear to affect the position of the intermediate image or the functioning of the microscope in any substantial way. "A person of ordinary skill in the art is also a person of ordinary creativity, not an automaton." *KSR*, 550 U.S. at \_\_\_, 82 USPQ2d at 1397.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Consilvio whose telephone number is (571) 272-2453. The examiner can normally be reached on Monday thru Thursday, 8:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2872

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/M. C./

Examiner, Art Unit 2872

/Alessandro Amari/

Primary Examiner, Art Unit 2872